

REMARKS

Claims 3, 5-16, 28 and 29 are pending prior to entering this amendment. Claims 1-2 and 17-27 stand withdrawn. Applicant respectfully traverses the rejections for the reasons explained below, and requests reconsideration. In this amendment, claims 3 and 16 are amended. No claims are added or canceled.

Alleged Substantive Rejections

1. Claims 3, and 5-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Raphaeli in view of Machin. The proposed combination does not establish *prima facie* grounds for rejection for at least the following reasons.

Claim 3 is currently amended to recite, in part:

“providing a single central coordinator in the centralized wired network to manage connections over the network;

sending a request to the central coordinator for a connection, the request including the connection type and the connection specification;

in the central coordinator, granting the request for a connection, and assigning a connection identifier (CID) that is unique over the centralized wired network; and

if the connection is granted, associating [[a]] the assigned unique connection identifier with the selected service access point.”

Raphaeli discloses a PLC network as the examiner pointed out. Machin, however, does not disclose providing a *single central coordinator* in the centralized wired network to manage connections over the network.¹ In the present application, “A global identifier assigned by the CC at the time of connection Set-up uniquely identifies connections.”² To the contrary, Machin discloses interface software for managing connections *within* a single device (a computer). As the examiner pointed out, “all of the figure 19B [in Machin] is the attached device.”³ The “virtual connection identifier” mentioned in Machin is internal to the device only, and is used for

¹ See applicant’s specification: “In the example of Figure 1, the activity of every device in the network is controlled by a central entity called the Central Coordinator (CC). Alternative systems are distributed in nature and such systems do not have a CC.” Page 2, last paragraph.

² Specification at page 7, line 18.

³ Office action, page 3, first paragraph.

internal routing via the “integrating component” to simplify the API to lower level device drivers.⁴ For at least these reasons, claims 3, and 5-12 are patentable over the cited prior art.

2. Claims 13 and 15 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Machin in view of Raphaëli, further in view of Johansson (US 6,873,624). Applicant again respectfully traverses. Claim 13 calls for:

“each connection is assigned a connection identifier that is globally unique throughout the centralized network for use in routing data packets from the source device to selected ports in the destination devices.” As discussed above, Machin does not disclose assigning a connection identifier that is *globally unique throughout the centralized network*. There is no such disclosure because Machin only discusses software and operations within a single device, and also because Machin is directed to distributed, not centralized, networks. For at least these reasons, claims 13 and 15 should be allowed.⁵

3. Claim 14 also stands rejected under 35 U.S.C. 103(a) as being unpatentable over Machin in view of Raphaëli, further in view of Johansson (US 6,873,624). Claim 14 depends from claim 13 and should be allowed for the reasons discussed immediately above.

4. Claims 16 and 28-29 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Raphaëli in view of Buckhotz (US 5,555,266). The proposed combination does not establish *prima facie* grounds for rejection for at least the following reasons. The examiner pointed out paragraph [0017] of Raphaëli,⁶ which recites with regard to channel access techniques: “In central control, a single station, referred to as the channel master, controls all access to the channel and allocates channel access to stations in the network.” The reference does not elaborate at all on this concept, as it describes a solution for *distributed*, rather than centralized, control of the network.⁷ The claim is currently amended as follows:

⁴ See Machin at [0148]-[0159].

⁵ Claim 15 is not argued as being separately patentable apart from the base claim.

⁶ Office action, page 8, penultimate paragraph.

⁷ According to Raphaëli: “Medium sharing is achieved using a modified CSMA/CA mechanism with random backoff. The medium sharing implemented by the MAC protocol uses the following

“16. (Currently amended) A method of broadcasting a message in a centralized wired power line communication network, the method comprising:

providing a centralized wired network characterized by having a single, common physical wired connection interconnecting all devices attached to the network, so that all communications among the attached network devices travel directly over the wired connection;

providing a local bandwidth manager in each device attached to the centralized network; in an attached device, receiving a broadcast message from a user application in that device, and storing the broadcast message in a buffer;

in the local bandwidth manager, responsive to the buffered broadcast message, sending a bandwidth request to requesting a bandwidth allocation from a central coordinator attached to the wired network;

in the local bandwidth manager, receiving an indication of a bandwidth allocation on a dedicated broadcast channel within the centralized wired network; the dedicated bandwidth channel defined as a logical channel on the common physical wired connection interconnecting all devices attached to the power line communication network;

wherein the bandwidth allocation is transmitted from the central coordinator to the local bandwidth manager over a predetermined beacon channel separate from the dedicated broadcast channel; and then

transmitting [[a]] the buffered broadcast message on the dedicated broadcast channel of the centralized network in accordance with the received indication of a bandwidth allocation so that the broadcast message travels directly over the common physical wired connection from the transmitting device to every other device attached to the centralized network without traversing an intermediary broadcast facility.”

The reference does not disclose the recited use of local bandwidth managers, broadcast message buffering, a dedicated broadcast channel, and a separate beacon channel for communicating with the central controller. For at least these reasons, claims 16 and 28-29 are clearly patentable over the prior art of record.

mechanisms: virtual carrier sense (VCS) and physical carrier sense (PCS), channel reservation, backoff and interframe space.” [0193].

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 3, 5-16 and 28-29 of the application as amended is requested. The examiner is encouraged to telephone the undersigned at (503) 224-2170 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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